Registry of medical services II (RUM II)

(Rejestr usług medycznych II (RUM II)

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Abstract – The authors discussed the Medical Services Register II (RUM II) created by the National Health Fund in 2007 , paying attention to the most important components of this system. In addition, they characterized the Integrated Patient Information (ZIP), where a registered patient can check the history of treatment and its financing.

Key words **–** Integrated Patient Information (ZIP), Integrated Patient Information (ZIP).

Streszczenie – Autorzy dokonali omówienia Rejestru Usług Medycznych II (RUM II) stworzonego przez Narodowy Fundusz Zdrowia w 2007 roku, zwracając uwagę na najważniejsze składowe tego systemu. Ponadto scharakteryzowali Zintegrowany Informator Pacjenta (ZIP), gdzie zarejestrowany pacjent może sprawdzić historię leczenia i jego finansowanie.

Słowa kluczowe – Zintegrowany Informator Pacjenta (ZIP), Zintegrowany Informator Pacjenta (ZIP).

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A. The idea and the planning of the study
B. Gathering and listing data
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D. Writing the article
E. Critical review of the article
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I. DATA PROCESSING OBJECTIVES

The Medical Services Register II (RUM II) is a system created by the National Health Fund in 2007 and is financed by it. It was created to process data on granted and planned health care services financed from public funds and to account for these benefits. The basic elements of this system include [1,2] :

- an electronic health insurance card,
- electronic cards for medical and technical personnel,
- authentication numbers of medical contacts,
- unique transaction identifier,
- RUM form (RUM coupon),
- authentication positions for medical contacts,
- internet RUM portal (Internet RUM book).

The personnel card number in the RUM system should also be used to identify paper-based documentation that is related to the medical transaction. The medical personnel card, thanks to the built-in counter, will be used, among others, for the authentication of medical contacts. In addition, the staff, depending on the type of card they have, will have the option of authorized access to information, and will be able to modify it as much as possible. The full range of data containing information: technical and organizational data, personal data, medical data - emergency and full medical data will be available only to physicians and NFZ personnel who have control rights [2]. Each medical contact will have to be authenticated by the patient. This will be possible thanks to the authentication number which will be downloaded from the KUZ card and with the help of the medical contact information stored in the electronic signature technology. The authentication number

consists of the card number and the medical contact counter, which grows chronologically. If all numbers are exhausted, a new card will be issued [2].

The RUM form, also known as the RUM coupon, is marked with the identifier of the medical transaction. It combines data from the RUM system in electronic form with medical documentation. If the information *Prescription / Order* , deleted *Rp* text is added to the coupon and the *chronic disease* text is changed to *Disease* or *Diagnosis* , then the RUM form may have a similar appearance to the current prescription pattern [2].

On the main page of the prescription there will be information collected from KUZ and a staff card, which will contain personal data of the patient and data allowing for the identification of medical personnel. In addition, the barcode will also contain the medical transaction number. On the reverse of the prescription, you can print or enter self-supporting medical data. In the case of *order* transactions - *the implementation* on this page of the form will be filled in with the patient and staff authentication numbers. The reverse of the prescription may contain billing, reporting and supplementary medical data. This information may be placed on a separate sheet, but this must be permanently combined with the prescription to which it relates [2].

The completed form should be treated in three ways as [2] :

1) internal medical documentation - which confirms the provision of the benefit,

2) external medical documentation - such as an order or a referral,

3) prescription.

It was assumed that at every single place where publicly funded benefits are provided or implemented, at least one computer connected to the Internet will function. Each of these computers must have an electronic card reader. In addition, for example, pharmacies must also have a bar code reader. In addition, both pharmacies and all healthcare providers must purchase software that will meet the standards of service of Health Insurance Cards and medical and technical personnel cards [2].

The RUM system operates based on two types of medical contacts. Single-phase contact, for example, medical advice without a prescription and two-phase, that is, prescription and its implementation by a pharmacist. Both phases are implemented on the basis of two stages. The first one is the transitional stage in which the service providers will have RUM coupon blocks. It will function until the infrastructure necessary to introduce the e-prescription is completed, while the second is the final stage, where authentication will take place only by means of electronic cards[2].

Figure 1 presents a two-phase medical contact, during which the doctor issued an e-prescription to the patient, and the doctor went to the pharmacy. In this system both the patient and the health personnel were to be identified on the basis of cards in electronic form, which would facilitate ay authentication authorization and implementation of medical contact.

II. INTEGRATED PATIENT INFORMATION GUIDE (ZIP)

The Integrated Patient Information (ZIP) is a website where a registered patient can check the history of treatment and its financing. Data is collected in it by the National Health Fund since 2008. If the patient does not have the data necessary to log in to the site, then the portal is for him only a source of information about health care [1,3].

What should I do to be able to use the portal without any restrictions? All you need to do is go to the NFZ branch appropriate for your patient and sign the application for using the ZIP system. You must show your ID card or passport and then pick up your password and login. For data security, login information passed on to the patient is placed in a sealed envelope [3].

The portal is divided into 4 modules [3] :

- Your portal,
- Where to treat,
- Registry of Medical Services,
- Right to benefits.

The first two are available for each citizen, while the last two are visible only to logged in users, because they contain information about the treatment of individual patients [3].

The *Your portal* tab provides knowledge related to the right to health care services financed from public funds. Here, the patient can read the statements and messages regarding ZIP, with their rights, as well as get detailed knowledge about medical services, including about the rules of use, list of examinations, specialists and about payments in the case of spa treatment. In addition, when the patient wants to get more information about treatment abroad, thanks to the tab *Your portal* - will be sent back to the proper website [3].

Where to treat is another tab that helps the patient navigate the health care system. With this application we find places where you can be treated for free. We will find a pharmacy, a reception room, a hospital emergency department, a dental office, a supply point for orthopedic items

and many more. An interesting thing is the possibility to search for the address of outlets that provide services as part of preventive programs [3].

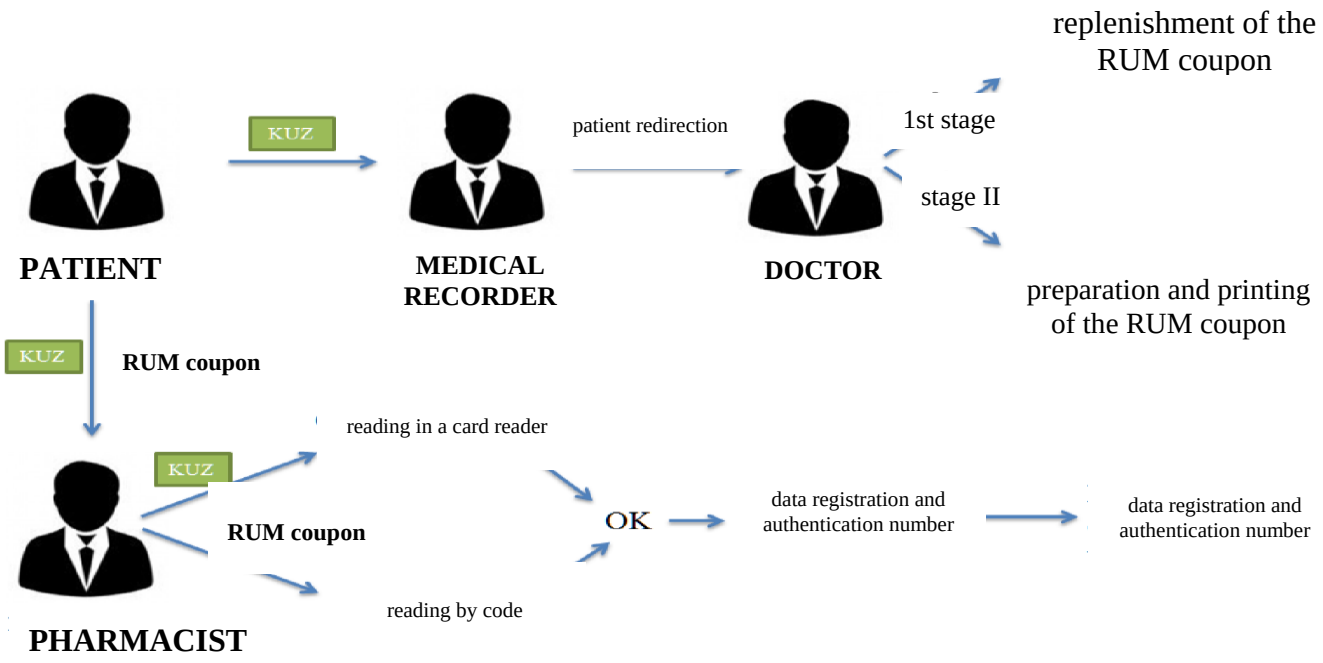

Figure 1 . Flow of RUM COUPON in the project proposed by the NFZ [own study based on 2]

After logging in, we gain access to the *Register of Medical Services* . There, information is available on where and when the patient was treated, how much the treatment cost, and when the patient used reimbursed items, such as a prosthesis, a hearing aid or other. In addition, in this module we will find information about completed prescriptions. The logged-in persons get a full picture of the pharmacological treatment, which was financed in whole or in part by the NFZ. The patient can check which medicine he bought and in which pharmacy. He will get knowledge of how much NFZ paid to the medicine, and what was the patient's share in the costs. The patient will also learn about the total reimbursement, medicines purchased so far. In addition, in the RUM tab you can find a declaration and remind you which doctor you are registered to. Thanks to the *queue of waiting queues, the* patient can get an idea of where he / she waits for the benefit if he / she has been entered by his / her doctor on the waiting list [3].

The last module is the *Right to benefits* . In it, it is checked whether according to information available to the NFZ the patient has the right to benefits, based on current health insurance. The data is valid as of the check date [3,4].

Figure 5 presents the construction of the Integrated Patient Information System. The green color indicates two modules, access to which is only possible after logging in. The element of *medical prescriptions* in the *Medical Services Register* column has been more marked, due to the fact that the work is devoted to this module.

III. SUMMARY

In conclusion, both concepts assumed the introduction of electronic cards for patients and health care professionals. There are many advantages. Among the benefits of introducing cards, you can mention shortening the time of patient's registration with the service provider, eliminating irregularities when saving data

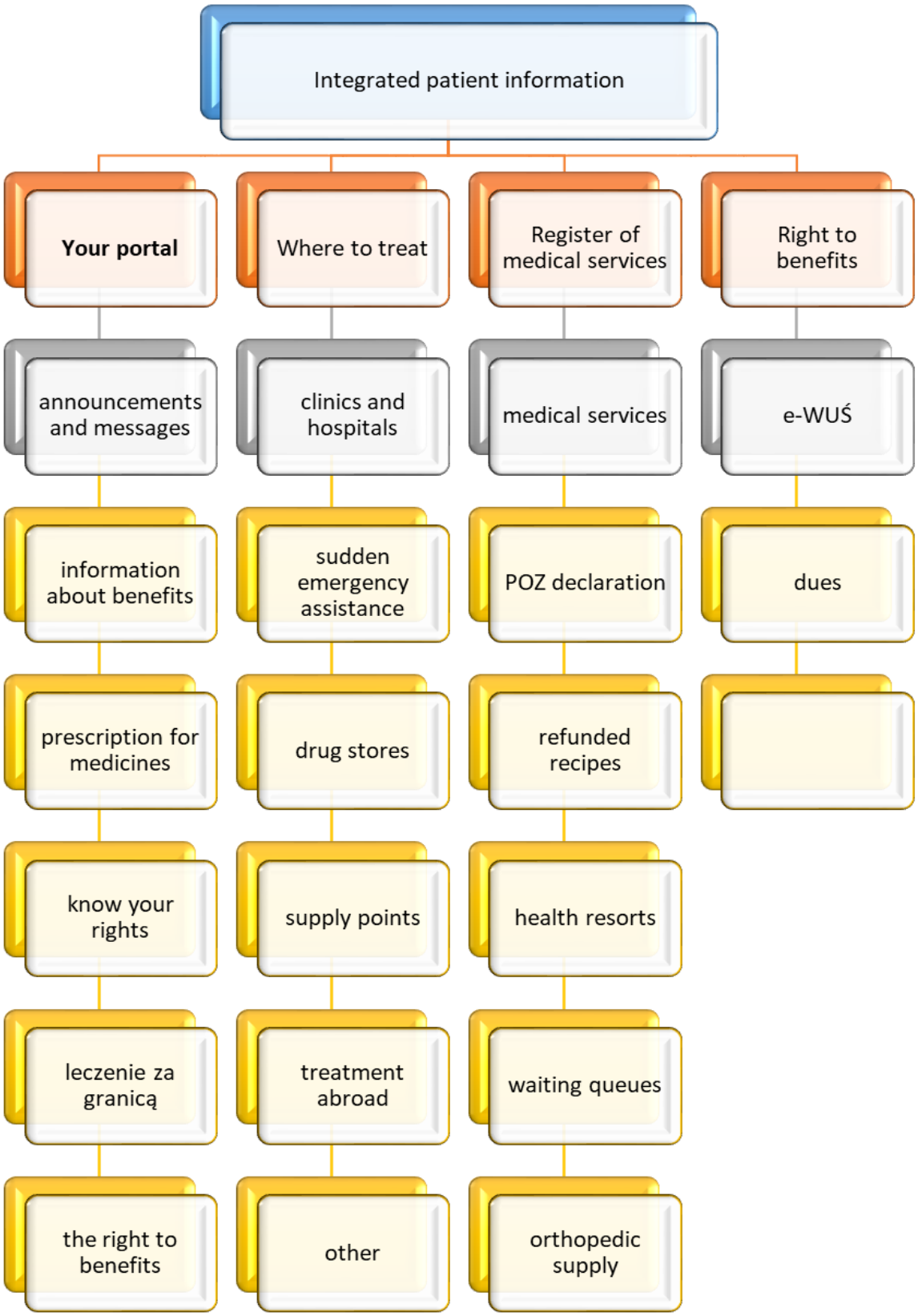

Figure 2. Construction of the Integrated Patient Information System [for own work]

from public funds. Thanks to the fact that the card will be identical throughout the country - you can use it everywhere. The creation of the ZIP was also a step towards improving the computerization system. Thanks to this website, the patient has the opportunity to get acquainted with the basic information about health care, and additionally, he can follow individual medical appointments and recipes he has completed. It is worth trying to make even more patients want to create an account on the ZIP site, so that you can use its possibilities without any restrictions.

In the original assumption, the difference between ZIP and SIM consisted in the fact that the Zip will contain only recipes, fully or partially financed by the NFZ. In turn, SIM will collect information on all prescriptions, regardless of whether they are refunded to some extent or not.

Due to the fact that Poland intends to introduce a new solution, which is an e-prescription, it is worth paying attention to the experience of other countries in which this solution is already in operation or is being implemented. This will allow you to draw valuable conclusions and create a system that will work in an effective manner.

IV. REFERENCES

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